

Abstract of the Disclosure

The present invention provides a simple, reliable, and inexpensive process for
5 the manufacture of diagnostic biosensor films such as diffraction-based diagnostic
films. The present invention includes a method for preparing a diffraction-based
diagnostic biosensor film that includes the steps of: a) providing a receptor solution
that includes a receptor and a carrier fluid, b) applying the receptor solution to a
printing cylinder having a longitudinal axis and an engraved pattern of cells, each cell
10 having a width, height, and depth for acceptance of the receptor solution, the printing
cylinder being rotated about the longitudinal axis, c) transferring the receptor solution
from the rotating printing cylinder to a substrate, and, d) drying the printed substrate,
wherein the dried receptor forms a pattern that includes individual printed areas
15 having a center-to-center spacing ranging from about 0.1 microns to about 100
microns.